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ABSTRACT

This study examines educational programs, supported by the Indiana State Board for Vocational and Technical Education, for the disadvantaged and makes recommendations regarding future education for professional personnel involved in such programs. Results suggest that local communities in Indiana show a great variety of approaches in meeting the vocational education needs of disadvantaged and handicapped students. Vocational programs for the disadvantaged and handicapped in Indiana are said to be significantly different in many respects from traditional vocational programs, and, hence not easily comparable; vocational programs for the disadvantaged and handicapped are becoming institutionalized in the total effort in vocational education. Substantial differences are stated to exist in programs within each category program (disadvantaged handicapped, and multi-population) and across categories of programs. It is suggested that vocational teachers of the disadvantaged and handicapped can benefit from teacher education; and that professional development for vocational teachers of the disadvantaged and handicapped must be based on the needs of students, teachers, and programs, taking into consideration the different student populations served and the expressed needs of teachers. (Author/JM)

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VOCATIONAL EDUCATION FOR THE DISADVANTAGED AND HANDICAPPED IN INDIANA

-- A Status Report --

July , 1974

by

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INTRODUCTION TO THE STUDY

Background

Providing occupational training for persons with special needs has been a specific mandate for vocational education since the 1963 Vocational Education Act. In that landmark legislation individuals who could not succeed in regular vocational programs were singled out as deserving special attention by vocational education. The 1968 Amendments to the VEA strengthened the mandate to provide those persons who are disadvantaged and handicapped with vocational education services. Specific dollar setasides were included in the federal legislation of 1968. Each state has been required to make a philosophical, operational, and dollar commitment to providing vocational education for disadvantaged and handicapped persons. In Indiana federal dollars along with state and local funds, have been expended for disadvantaged and handicapped persons and have produced a substantial number of programs specifically designed for persons who have been designated as handicapped or disadvantaged.

By definition the funds have been used to provide vocational services for persons who could not succeed in regular vocational programs. Because the nature of the disadvantagements and/or handicaps is varied, the efforts which have been undertaken are often quite different from those which are traditionally associated with vocational education. Activities could range from remedial courses in basic tool skills to fully developed work experience programs. In essence, the traditional definition of vocational education was expanded to accommodate the diverse needs of disadvantaged and handicapped persons. The multiplicity of approaches taken in meeting the needs in these parts of the population made it very difficult to

generalize about the vocational education efforts for the disadvantaged and handicapped.

The long established program criteria for vocational education were no longer applicable. Three-hour blocks of instruction, specially certified vocational teachers, and emphasis on training students with clear career objectives were not necessarily appropriate designations for vocational education when speaking of disadvantaged and handicapped persons

Hence, it was appropriate that a study be undertaken to attempt to describe (1) the nature of the student body served, (2) the characteristics of programs and classes, and (3) the characteristics of professional development of personnel involved in such programs and classes. Regardless of the diversity of the population served, professional personnel involved and program characteristics, a research effort was needed to attempt to classify data concerning vocational education efforts for the disadvantaged and handicapped. The results of this research should assist vocational education decision makers in understanding the various approaches being taken concerning disadvantaged and handicapped and in planning for future activities, including teacher education, additional research, and evaluative projects.

Project Purposes

The major focus of this study was to examine educational programs, supported by the Indiana State Board for Vocational and Technical Education, for the disadvantaged and then to make recommendations regarding future education for professional personnel involved in such programs. Specifically, the intent of the project was: (1) to classify organizational arrangements for vocational programs for the disadvantaged, (2) to identify problems and problem areas encountered by vocational teachers of the disadvantaged,

(3) to explore such problems through field visitations, (4) to assess problems and problem areas in terms of needed teacher education experiences, and (5) to present recommendations for teacher education for teachers of the disadvantaged.

Major Questions to be Answered by the Study

The review of literature, consultation with the chief consultant for disadvantaged and handicapped, and consultation with a specialist in teacher training for multi-cultural settings produced a list of major questions to be answered by this study:

(1) How are vocational programs for the disadvantaged and handicapped organized in terms of (a) program length; (b) time devoted to program (c) nature of student population; (d) nature of occupational experiences included; (e) physical facilities; and (f) program administration.

(2) What are the goals to be achieved by a program for the disadvantaged and handicapped in Indiana?

(3) To what extent are program goals being achieved as perceived by teachers of the programs?

(4) What is the nature of the curriculum content of Indiana programs for the disadvantaged and handicapped?

(5) What are the perceived problems in implementing programs for the disadvantaged and handicapped according to teachers?

(6) What teacher education experiences have vocational teachers of the disadvantaged and handicapped had? And to what extent were these of value?

(7) What is the educational and occupational background of such teachers?

(8) What problems are currently being encountered by vocational teachers of the disadvantaged and handicapped?

(9) What professional development experiences are perceived to be needed by vocational teachers of the disadvantaged and handicapped?

Project Tasks

Project objectives and observations obtained by the project staff during the initial period of the study resulted in a series of specific teaching steps from project inception through project completion. Below are the specific steps followed in the study:

(1) Exploratory conversations were undertaken with the chief consultant on the disadvantaged and handicapped and the consultant representing multi-cultural teacher education.

(2) A review of the literature was undertaken utilizing the PROBE services of Indiana University and the resources provided through ARM of The Center for Vocational and Technical Education

(3) Efforts were undertaken to identify the population to the survey.

(4) Modifications were incorporated into the study's objectives and procedures, based on available research and consultative recommendations.

(5) Project parameters and major questions were formulated by the project staff.

(6) Two instruments were designed to gather the data required in the study.

(7) Content and format of the instruments were reviewed and revised in accordance with the suggestions of the chief consultant of disadvantaged and handicapped, and the consultant representing multi-cultural teacher education.

(8) Questionnaire I was developed, and mailed.

(9) After two weeks a follow-up mailing of Questionnaire I was made.

(10) Using the results of the Questionnaire I and after consultation with the chief consultant for disadvantaged and handicapped and the consultant representing multi-cultural teacher education, Questionnaire II was finalized and mailed to respondents of the first instrument.

(11) A follow-up instrument (Questionnaire II) was mailed to non-respondents after two weeks.

(12) The data were analyzed using normative statistics and presented in tabular form.

(13) Field visitations of 10 programs were conducted to ascertain the data not possible to obtain through mailed questionnaires.

(14) Preliminary summarizations of all the data were formulated and presented to the consultant for multi-cultural teachers education programs.

(15) The conclusions were drawn and recommendations were made based on the findings of the study.

(16) A final report was prepared for submission to the Indiana State Board for Vocational and Technical Education.

Project Parameters

The following procedural decisions were made regarding project parameters: (1) the study would necessarily be descriptive, (2) data collection would emphasize breadth rather than depth, (3) instrumentation would be designed to maximize return, (4) the population would be defined as teachers of the disadvantaged, teachers of the handicapped, and teachers of multi-population programs (teachers of both disadvantaged and handicapped students), (5) respondents would indicate which of the above three student groups their programs were designed to serve, (6) individual interviews with selected teachers would be the mechanism for gathering data regarding more sensitive issues, and (7) an attempt would be made to obtain information

about four main areas of all programs for the disadvantaged and handicapped in the State of Indiana: (a) teacher information, (b) program information, (c) student information, and (d) professional development. Also, the project staff was to work closely with the chief state consultant for the disadvantaged and handicapped in the Division of Vocational Education, State Department of Public Instruction.

Project Modifications

As originally conceived, after the population was determined, two instruments were to be administered to the teachers. One instrument was to be designed to collect demographic information about teachers, their programs, and their students. The other instrument was to be a teacher preference scale which would measure aspects of the teachers' attitudes toward their programs, problems encountered, and professional development.

A thorough review of the literature pertaining to vocational education programs for the disadvantaged and consultation with the chief consultant for disadvantaged and handicapped produced a conclusion that certain structural modifications in the project must take place in order for the major objectives to be realized. Below is a list of problems which surfaced: (1) the original population (teachers of the disadvantaged) was not discernable or discrete. In other words, it was apparent early that teachers of the disadvantaged could not be separated from teachers of the handicapped. Although there are federal and state definitions of what constitutes disadvantaged and handicapped persons, teachers frequently do not identify their programs with these definitions. (2) Great variations were observed in the nature of the efforts for disadvantaged and handicapped through vocational education. Hence, some efforts would be called special sections

of regular classes in vocational education while others were definite programs, such as Pre-Vocational Education. (3) Because of the practices in identifying efforts in vocational education for disadvantaged and handicapped persons, an accurate mailing list of the teachers was not available. (4) The apparent disassociation of teachers of the disadvantaged and handicapped from traditional vocational education led the project staff to observe that extreme caution would need to be used in instrumentation in order to maximize the number of responses to be received.

Questionnaire Returns

First questionnaires were mailed to the 257 persons whose names appeared in the State Division of Vocational Education files as teachers of the disadvantaged and handicapped. This was to be the entire population. When the first returns proved to be less than satisfactory, a telephone survey was used to determine possible causes. Calls were made randomly to persons who had not returned their questionnaires and who taught in a system that could be reached with the State's SUVON network. It was found that many of the addresses provided on the roster supplied by the State Division of Vocational Education were for the schools' business offices. As a result, in many cases, the questionnaires were not forwarded to the persons in charge of the programs. These individuals were then included in a second mailing to the corrected address. In addition, it was found that some persons had moved to different positions either within or outside the system and the programs/class(es) had been added. The new names and addresses were added to the mailing list. A second mailing of the first questionnaire was then made including the new names, address changes, and persons representing schools from which no response had been received.

The total return was 153 or 58 percent of the adjusted population (original list plus new entries less deletions).

Population from state roster	257
Deletions due to Program termination, position changes and death	30
Additions due to: personnel changes and program additions	35
Adjusted population	262

The second questionnaire was then sent to all persons returning the first questionnaire. The return (with follow-up) was 73 percent, or 112 questionnaires.

RELATED LITERATURE

The available literature and research pertaining to vocational education for the disadvantaged and handicapped reveals several recurring themes of major importance. They are: (1) the challenges to vocational education in teaching the disadvantaged/handicapped, (2) the need for research and evaluation of such programs, (3) the identification of the characteristics of disadvantaged/handicapped and their programs, (4) the need to identify characteristics of effective teachers for the disadvantaged and handicapped, and (5) the importance of designing teacher education programs specifically for those teaching the disadvantaged and handicapped.

Challenges and Need for Research

Barlow (1965) in "Challenges to Vocational Education", stated that "Education in general, has failed to help the disadvantaged youth, and vocational education has largely eliminated this group by imposing selection devises." Grove (1966) in his Survey of Vocational Education Programs for Students with Special Needs concluded that "Vocational leaders and teachers have struggled to prevent their programs from becoming the dumping ground for these students who could not conform to the general pattern of education." Thus, it may be said that providing vocational education for the disadvantaged and handicapped may not be a goal to which all of vocational education is committed.

It was not until 1963 that Congress gave fundamental and philosophical attention to vocational education for the disadvantaged and handicapped. The findings of the President's Panel of Consultants, in 1962, gave impetus to the inclusion of provisions for serving special needs students in the Vocational Act of 1963. A major finding of the Panel of Consultants was

that vocational education was lacking in providing programs for youth with special needs. In many respects, vocational education had become as selective as academic education with regard to accepting students. As a result, section 4(a) of the 1963 Act states that ". . . vocational education shall be provided for persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education programs" (Public Law 88-210, p. 1). Another finding of the Panel of Consultants was the lack of data and the need for research for special needs programs. To alleviate the problem, the Vocational Education Act of 1963 allocated federal funds for research. Many research and demonstration projects were undertaken to provide needed data. However, ". . . even with longer research experience, there is still a shortage of data on characteristics of those served, cost of services, and long-range results" (Williams, 1971, p. 61).

As a result of Public Law 88-210 and the recommendations of the President's Panel of Consultants many states began to take appropriate action to eliminate the short comings of vocational education. Grove found in his national survey in 1965 that Public Law 88-210 had a significant effect on the development of vocational education programs for students with special needs. He found that 85 percent of the existing programs were established after 1962. However, his survey also showed that only a few states had appreciable numbers of vocational education programs for the special needs student. Of the 229 responses, only 79 programs representing 24 states met the requirements for his study. Programs in states not used for the study either did not involve the type of students his study identified (students with special needs or disadvantaged children)

or were not supported by vocational education funds, or were not in public high schools (Grove, 1966).

Currently, more programs have been developed that serve both the disadvantaged and handicapped. With the complexities of organization in research, teacher education, school construction, relationships between the federal, state and local government, vocational education for the disadvantaged and handicapped still remains a enigma.

Grove (1966) found that very often school administrators and vocational leaders are reluctant to initiate programs because of the lack of a ". . .better understanding of the kinds of programs in operation and knowledge of how they are succeeding". (Grove, p. 5) This is an indication of the need for exploratory research into characteristics of programs, exemplary programs and effectiveness, problems encountered and their resolution, nature of students served, and degree of need met. Williams (1971, p. 65) concluded, ". . .it goes without saying that, to assure constant improvement, there must be a provision for constant evaluation and reporting of problems and accomplishments."

Characteristics of Disadvantaged

Several writers have proposed that an initial step in providing education for the disadvantaged and handicapped should be the identification of the characteristics of disadvantaged and handicapped learners. Havighurst had defined the disadvantaged as those children who tend to come from poor families, those that are recent immigrants to the big cities. Peck (1971) summarized the common characteristics of the urban disadvantaged from writers such as Reissnan, Calitri, Havighurst, Newton, Black, Brum, and Amos:

1. Family and social background--the disadvantaged youth live mainly in slum or ghetto areas; with large families, usually belong to a minority group, where divorce is frequent, juvenile delinquency is high and cultural enrichment is almost non-existent.

2. Housing--disadvantaged youth usually experience crowded living conditions in old and sub-standard housing; poor heating, ventilation and sanitary facilities; a lot of moving around.

3. Socio-economic situation--unemployment rates for out of school youth (between 16 and 21 years old) is extremely high; most employed have menial, low skilled low paying jobs; many rely on public welfare programs; many not capable of managing their financial resources.

4. Health--always a problem; rates of physical and mental illness high; high rate of digestive illnesses due to poor food storage facilities; malnutrition due to poor diets; effects of drugs.

5. Education--parents poorly educated, do not see value of education

The rural disadvantaged have many similar personal characteristics as the urban disadvantaged. Walker (1971) provided a list of their characteristics:

1. Limited ability to use the basic scholastic skills.
2. LImited perception of the value of an education.
3. Lack of motivation to learn.
4. Poor attitude toward the conventional school situation.
5. Weak self-image
6. Lack of self-confidence.
7. Dependent upon others
8. Low levels of aspiration
9. Short interest spans
10. Argumentative and hostile, or passive and apathetic.
11. Resentful of authority
12. Feeling of "not belonging"

The characteristics of the disadvantaged learner have significant implications for vocational education. Student characteristics are integral to assessing student needs and needs will be reflected in program organization and operation, teaching methodology, and curriculum.

Programs for Disadvantaged

Frazier (1968) considered two major groups or categories as recent innovative organization modifications. The first is that of revised grouping as opposed to grouping by ability. The second is that of "staff utilization patterns" so as to involve more non-professionals to ". . . spur more opportunities for much needed one-to-one relationships between pupil and teacher." Other means of providing improved educational opportunities stem from the extension of school services in preschool programs, tutorial programs, enrichment and guidance projects, cooperative and community programs.

However, whatever the special service and however it is organized, "it is obviously the curriculum -- content methods, resources, learning environment which must chiefly be dependent upon to bring about desired educational changes" (Frazier, 1968, p. 10). New developments in curriculum may be clarified as related to "overcoming experiential and cognitive deficits, to specific skill and subject areas, and to the urban world of which the child is a part" (Frazier, 1968, p. 12).

Loretan and Umans (1966) noted the appropriateness of some fairly recent curriculum programs and cited some notable characteristics. One example is providing concrete experiences such as working with cuisenaire rods, minerals and artifacts that will in turn become the tools of learning.

From actual materials and processes, children learn to draw generalizations (which are referred to as abstractions). The abstractions are then understood and internalized. New experiences will then be presented to encourage children to apply generalizations to new situations.

A school district on the west coast has tried a unique approach in which courses are not separated into subjects like science, mathematics, English, and industrial arts, but are integrated to make them relevant to the practical aspects of the world. In short, the process of planning a curriculum should start with an inventory of each student's activities, interests, cognitive and psychomotor abilities, cultural and personal characteristics and vocational aspirations (Hack, 1971).

Characteristics of Handicapped

Handicapped students vary in characteristics to as great an extent as the disadvantaged. Young's (1969) classification of the handicapped corresponds to those specified in the Vocational Education Amendments of 1968.

A. Mentally retarded:

   1. The educable -- comprise probably the largest single block of students to be served by the vocational educator; among the handicapped two or three percent of the general population is thought to be in this group; the rate of intellectual development ranges from 50-75%.

   2. The trainable -- responds more slowly than the educable; intellectual development is about 1/4 to 1/2 of the normal rate; persons are likely to have secondary physical or emotional problems in addition to retardation.

B. Speech impaired -- with articulatory disorders, vocation disorders, stuttering, delayed speech, or speech disorders due to hearing impairment, cerebral palsy or cleft palate, approximately 35 out of every 1000 persons are in this category.

C. Visually impaired -- approximately three blind students and six partially sighted students out of every one thousand.

D. Hearing impaired

1. The congenitally deaf - born deaf; about one out of every thousand.

2. The adventigiously deaf - born with normal hearing, but hearing nonfunctional due to illness or accidents; about four out of every 1000 persons are hard of hearing.

E. Crippled and health impaired -- have limited abilities in self-mobility, sitting in classroom and using materials because of muscular and neuromuscular handicaps; approximately 20 out of every 1000.

F. Emotionally disturbed and socially maladjusted -- behavior may be such that it is both distracting and distruptive to the rest of the class; the latter are ones who constantly cause trouble in school or at home (truants, predelinquents, delinquents, and incorrgibles).

Young (1969) warned that classifications are only arbitrary labels and categories to give convenience to legislatures when dealing with them. They should not be used to serve as basis for defining the type of programs or instruction needed. Far too often children have multiple handicaps and, therefore, cannot be dealt with effectively if put into a single category. "Children have been mislabeled and ill-served, thus, compounding their handicaps. Troublesome children and children from minority groups have been relegated to special classes for the retarded or emotionally disturbed merely because they come from poverty areas, broken homes or from homes where English is not spoken" (Hensley, 1973, p.3).

Programs for Handicapped

Special education services have been set up to serve handicapped children. The trend has become particularly pronounced since the 1940's. According to the U.S. Office of Education, 12 percent of all handicapped children received special education services in 1948. By 1963, this number

increased to 21 percent; 1967 to 33 percent; and by 1971 to 40 percent. However, at the present, more than half of the estimated seven million handicapped children still do not receive special services (Hensley, 1973).

Under the 1968 Amendments, vocational education has been charged to provide special educational programs and services for disadvantaged and handicapped persons to achieve vocational education objectives. Moreover, states must allocate ten percent of the total allotment for any fiscal year for vocational education for the handicapped. In the fiscal year of 1970, $36 million represented ten percent of the total grants to the several states for vocational education for the handicapped. In that year, about 26,000 handicapped students received vocational education services supported by vocational funds (The Council for Exceptional Children).

Characteristics of Effective Teachers

In the programs of the disadvantaged, little information is available as to what actually happens in the classroom and teacher effectiveness. With the acknowledgement that the disadvantaged children are, in fact, the most difficult students to teach, they therefore, require the best qualified and the most unique teachers to teach them. Attempts have been made to find out about the most desirable behaviors of teacher characteristics and attitudes and their relationship to effectiveness. Studies made revealed that there are some especially good, effective, and successful teachers for the disadvantaged.

Jablonsky, in his model of best teachers, characterized them as charismatic, compassionate, intelligent, emotionally mature, hard-working, highly creative and knowledgeable (Jablonsky, 1972). Goldberg's (1967) hypothetical model of the successful teacher of the disadvantaged also contained somewhat similar characteristics. She emphasized teacher's insight

into the pupils' family background and needs. She believed that a successful teacher should meet the disadvantaged child on equal terms; set clearly defined limits; not invoke feelings of shame or guilt; be strict but not punitive; and, expect more than the pupil thinks he can produce. Meyer, in comparing a successful and unsuccessful teacher, used these terms in relation to effectiveness; insight, student oriented approach, critical self-evaluation and personal flexibility, counseling and listening, creativity, personal dynamism and involvement.

Faunce (1968) made a study of Teacher Attitudes Toward Culturally Disadvantaged Children and arrived at several very challenging statements. The characteristics and attitudes of his effective teachers were very similar to that of Jablonsky and Goldberg. In addition, he looked at some things which appeared to be unrelated to attitudes toward disadvantaged children. He indicated that age, sex and experiences were not related to attitudes. Marital status, region of country the teacher was reared, parents' occupation, degrees held did not indicate significant relationship when compared to attitudes. A few characteristics were slightly related to attitudes. Black teachers and teachers who claimed they came from low socio-economic backgrounds tended to be more effective than white teachers and teachers who came from middle or upper class families. A slight superiority was shown by teachers who ranked high in their high school class and who scored high on the Minnesota Teacher Attitude Inventory. Those who scored high on the Hy scale of the MMPI seemed to be less effective. Faunce realized that these characteristics related to effectiveness were not strong enough for practical use, but he saw in them possibilities for further research work on the "picture of the effective teacher" (Faunce, 1968, p. 8).

Professional Development

The significance of the teacher is amplified by Goldberg who said, ". . . while the anthropologist's task is to describe and compare behavior of various culliness, and the psychologist's to understand individual behavior, the teacher's job is to modify it" (Goldberg, 1967, p. 473). The next and the most important issue is how to best prepare and equip teachers to acquire the needed competencies in such a great task as teaching the disadvantaged and handicapped children. In Faunce's (1968) study, in which questionnaires were completed by over 700 teachers, it was found that most teachers indicated a desire for improved training in teaching disadvantaged children.

Attempts have been made to provide teachers with participatory experiences and supplementary activities related to inner-city students. But, Smith (1969) in the "Preface" wrote: "In the course of its deliberations, the Institute Task Force (NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth) came to consider teacher education more and more as a whole, to attribute failures and inadequacies of education of the disadvantaged to defects in the education of teachers."

The Center for Vocational and Technical Education of The Ohio State University has completed several studies on teacher effectiveness and teacher preparation and their relations. Their project entitled Vocational Teaching in Diverse Cultural Settings showed that a need existed for a mechanism to incorporate changes into current programs of in-service education through individualized modules. The development of a means to formulate the needs of prospective inner-city/urban teachers was also determined. The fact still remains that successful inner city education teachers are few (Ferguson, 1972).

As a sequel, Operation Resource was developed by The Center to "assist educational personnel who are working with disadvantaged learners. It contains resumes of resources pertaining to disadvantaged learners and resumes of resources to assist individuals who have the responsibility for organizing and conducting in-service education programs" (Gorman, 1972, p. 2).

Klopf and Bowman (1966) found in Project Aware, (a nation-wide research project to assess the preparation of school personnel for working with disadvantaged children and youth) that of 122 colleges and universities which incorporated teacher education or work with the disadvantaged in their curriculum, over sixty percent reported that they have accomplished this goal through courses. In some cases, new courses like urban sociology, educational sociology, anthropology, community psychology were added to give background information. In other colleges, existing courses were modified to provide methods of teaching in urban schools, teaching reading to the disadvantaged, curriculum and organization in depressed areas schools, and so on. Still others added units or special emphasis in their present courses to provide help with diagnostic and remedial procedures, methods, and materials for individualizing instruction, strategies of classroom control, and personal and material resources (Klopf and Bowman, 1966).

Jablonsky (1967) in concluding his report of the Conference on College and University Programs of the Disadvantaged for New York State, points to the urgency of the whole matter and below are some of the many "imperatives for change":

> "In order to prepare teachers realistically to cope with the situations which exist and to work toward the improvement of those situations it is essential that the colleges learn from those school people who have been handling urban problems successfully day by day. Teachers and administrators who are effective should be brought into the colleges to participate in seminars, to teach and to share their learning with students and college faculty. College courses and field work in schools must be closely integrated. This will mean that teacher education for the disadvantaged must be at least partially, physically relocated so that a good portion of the training takes place in the disadvantaged community and in the schools located there" (p. 109).

In terms of teacher preparation it is imperative that the teacher know the cultures of the group that he is teaching; that teacher education programs continue to search for more accurate means of assessment and selection and applicants for admission; that teacher education institutions develop a good system of supervision in all aspects of field work; that in-service education be provided for new teachers for several years giving them opportunity for interpersonal interaction with an authority figure; that all in-service education programs have some means of evaluation built into their structure and that they provide for continuity; that potential teachers be prepared and taught to use new media and new instructional techniques effectively; that potential teachers be taught "how to teach," founded on that which has been learned from experience and justified by research; that there be communication across all disciplinary lines and cooperation within the humanities; and that specifically designed programs to prepare teachers for the disadvantaged be implemented in the colleges and universities (Jablonsky, 1967, p. 108 - 111).

From this review, it is evident that there remains great need for research in the field of vocational education for the disadvantaged/handicapped. There seems to be uniformity in the identification of students' characteristics and in the importance of meeting student needs. Programs, both

for the disadvantaged and handicapped have been innovative in bringing about a higher level of effectiveness in teaching these children. However, very little has been found to describe what actually happens in the classroom and what specifically constitutes the most desirable teacher characteristics and behaviors. Attention, therefore, is turned to a thorough review of the status and implementation of vocational education for the disadvantaged/handicapped.

DATA ANALYSIS

Introduction

The descriptive data generated through this study are classified into four broad categories: teacher information, program information, student information, and teacher education information. Summary data from each of the questions are included within one of the four categories. When feasible, data are presented for the total population and for each of the three student groups served: disadvantaged, handicapped, and disadvantaged and handicapped (multi-population).

Teacher Information

Demographic information concerning the vocational education teachers of disadvantaged and handicapped students was gathered to provide a profile of those involved and to highlight common and unique aspects of these teachers as compared to other vocational education teachers.

Age Range of Teachers. Teachers identified in the study were asked to indicate the appropriate age range to which they belonged (Table 1).

TABLE 1
AGE RANGE OF TEACHERS OF DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged		Teachers of Handicapped		Teachers of Multi-Population		Total	
Groups	N	Percent	N	Percent	N	Percent	N	Percent
21 - 29	15	25.4	13	40.6	14	22.6	42	27.5
30 - 39	15	25.4	11	34.4	16	25.8	42	27.5
40 - 49	17	28.8	4	12.5	16	25.8	37	24.1
50 and over	12	20.4	4	12.5	16	25.8	32	20.9
	59	100.0	32	100.0	62	100.0	153	100.0

It was noted that there was a relatively equal distribution of age ranges across the population surveyed. Only in the teachers of the handicapped was there any substantial inequality among the age categories. For these teachers 75 percent were under forty, while 25 percent were forty and over.

Subject Areas Taught. The variety of subject areas in which the population had prior experience was determined by requesting respondents to indicate all appropriate question options (Table 2). A great range of prior teaching experiences was noted and a clear-cut pattern of prior experience was not evident among the population. The predominate single area of teaching was special education. This is explained by the large numbers of handicapped and multi-population program teachers who indicated special eduction as a prior teaching area. It is interesting to note the frequency of "academic" teaching experience indicated. This suggests that vocational teachers of the handicapped and disadvantaged may have different backgrounds from other vocational teachers when their prior experience is considered.

Areas of Teacher Certification. The population was requested to indicate all their areas of teaching certification in the same fashion as their prior teaching experience (Table 3). The total number of areas of certification was fewer than subject areas taught because certain certification patterns provide for multiple subject area certification, such as elementary eduction.

Certification in special education predominated due to the large numbers of teachers of handicapped and multi-population programs, who were certified in that teaching area. The second most frequent area of certification was industrial arts. The failure of vocational subject certification to predominate may

TABLE 2
SUBJECT AREAS TAUGHT BY TEACHERS OF THE DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-population (62)		Total (153)	
Subjects	N*	Percent	N	Percent	N	Percent	N	Percent
Art	1	1.7	1	3.1	0	0.0	2	1.3
Science	4	6.8	4	12.5	7	11.3	15	9.8
Bus. Ed.	9	15.3	1	3.1	6	9.7	16	10.5
Bus Ed. Voc.	5	8.5	0	0.0	4	6.5	9	5.9
Home Ec.	11	18.6	4	12.5	9	14.5	24	15.7
Eng. Related	9	15.3	2	6.3	7	11.3	18	11.8
Foreign Lang.	2	3.4	0	0.0	2	3.2	4	2.6
Ind. Arts	13	22.0	2	6.3	15	24.2	30	19.6
Math	8	13.6	2	6.3	5	8.1	15	9.8
Elementary	3	5.1	9	28.1	10	16.1	22	14.4
Music	1	1.7	1	3.1	0	0.0	2	1.3
Phys. Ed.	11	18.6	3	9.4	12	19.4	26	17.0
Soc. Studies	8	13.6	2	6.3	5	8.1	15	9.8
Special Ed.	1	1.7	27	84.4	30	48.4	58	37.9
Distributive Ed.	1	1.7	0	0.0	3	4.8	4	2.6
T & I Ed.	21	35.6	0	0.0	16	25.8	37	24.2
Voc. Ag.	4	6.8	2	6.3	3	4.8	9	5.9
Voc. Health Occ.	1	1.7	0	0.0	0	0.0	1	.7
Ind. Coop Tr.	4	6.8	1	3.1	5	8.1	10	6.5
Other	17	28.8	5	15.6	14	22.6	36	23.5
	134		66		153		353	

*N = frequency of responses

TABLE 3
AREAS OF CERTIFICATION FOR TEACHERS OF THE DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

Certification Areas	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-Population (62)		Total (153)	
	N*	Percent	N	Percent	N	Percent	N	Percent
Art	1	1.7	1	3.1	0	0.0	2	1.3
Science	3	5.1	3	9.4	7	11.3	13	8.5
Bus. Ed.	10	16.9	1	3.1	9	14.5	20	13.1
Bus Ed. Voc.	6	10.2	0	0.0	2	3.2	8	5.2
Home Ec.	7	11.9	3	9.4	8	12.9	18	11.8
Eng. Related	5	8.5	1	3.1	7	11.3	13	8.5
Foreign Lang.	3	5.1	0	0.0	2	3.2	5	3.3
Ind. Arts	10	16.9	2	6.3	14	22.6	26	17.0
Math	2	3.4	0	0.0	1	1.6	3	2.0
Elementary	1	1.7	13	22.0	10	16.1	24	15.7
Music	1	1.7	1	3.1	0	0.0	2	1.3
Phys. Ed.	6	10.2	3	9.4	12	19.4	21	13.7
Soc. Studies	8	13.6	3	9.4	7	11.3	18	11.8
Special Ed.	0	0.0	27	45.8	23	37.1	50	32.7
Distributive Ed.	6	10.2	1	3.1	1	1.6	8	5.2
T & I Ed.	5	8.5	1	3.1	16	25.8	22	14.4
Voc. Ag.	2	3.4	2	6.3	3	4.8	7	4.6
Voc. Health Occ.	1	1.7	0	0.0	1	1.6	2	1.3
Ind. Coop Tr.	1	1.7	2	6.3	6	9.8	9	5.9
Other	11	18.6	2	6.3	11	17.7	24	15.6
	89		66		140		295	

*N = frequency of responses

indicate that the teachers in this population may differ in prior training from traditional vocational teachers.

Years of Teaching Experience. Another means of obtaining a perspective on the teachers involved in teaching vocational education to disadvantaged and handicapped students was the determination of the length of teaching experience of those teachers (Table 4). Frequency counts were obtained for ranges of years of teaching experience. Almost 60 percent of the population had less than 10 years of teaching experience. Combining these data with the age ranges of teachers, it would appear that some of the teachers entered teaching after spending some years in a non-teaching field. Trade and industrial education teachers included in the population would exemplify this pattern because of the trade experience required for certification.

TABLE 4
YEARS OF TEACHING EXPERIENCE HELD BY TEACHERS OF THE DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged		Teachers of Handicapped		Teachers of Multi-Population		Total	
Years of Teaching	N	Percent	N	Percent	N	Percent	N	Percent
1 - 3	10	16.9	13	40.6	11	17.7	34	22.2
4 - 6	9	15.3	7	21.9	11	17.7	27	17.6
7 - 9	17	28.8	1	3.1	10	16.1	28	18.3
10 - 12	5	8.5	1	3.1	8	12.9	14	9.2
13 - 15	9	15.3	2	6.2	6	9.7	17	11.2
16 - 18	3	5.1	2	6.2	5	8.2	10	6.5
19 and over	6	10.1	6	18.9	11	17.7	23	15.0
	59	100.0	32	100.0	62	100.0	153	100.0

Type of Teaching Certificate Held. Indiana teaching certificates are generally classified into four types: limited, provisional, professional, and conditional. The first three are baccalaureate-based; while the fourth is a vocational certificate for persons who have specialized occupational experience, but not necessarily a baccalaureate degree and regular certification. The teachers surveyed in this study are most often associated with degree-related certificates and this is consistent with the relative infrequence of trade and industrial education teachers included in the study (Table 5). Hence, specialized occupational experience leading to conditional certification does not appear to be widely utilized, or perhaps, necessary for the teachers in this population.

TABLE 5
TYPES OF TEACHING CERTIFICATES HELD BY TEACHERS OF THE DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

Teaching Certificates	Teachers of Disadvantaged		Teachers of Handicapped		Teachers of Multi-Population		Total	
	N	Percent	N	Percent	N	Percent	N	Percent
Limited	1	1.7	1	3.1	1	1.6	3	2.0
Provisional	14	23.7	16	50.0	17	27.4	47	30.7
Professional	28	47.5	15	46.9	36	58.1	79	51.7
Conditional	13	22.0	0	0.0	6	9.7	19	12.3
Other	1	1.7	0	0.0	1	1.6	2	1.3
Not Marked	2	3.4	0	0.0	1	1.6	3	2.0
	59	100.0	32	100.0	62	100.0	153	100.0

Other Professional Experiences in Education. The diversity of programs for the disadvantaged and handicapped in vocational education suggested that teachers of the programs might have a wide range of experiences in education that are not directly associated with classroom teaching. The data concerning this question are contained in Table 6. In answering the question teachers were asked to indicate all their non-teaching education experiences.

TABLE 6
OTHER PROFESSIONAL EXPERIENCES IN EDUCATION OBTAINED BY TEACHERS OF THE DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged		Teachers of Handicapped		Teachers of Multi-Population		Total	
Experiences	N	Percent	N	Percent	N	Percent	N	Percent
Guid. Counselor	5	8.5	1	3.1	1	1.6	7	4.4
Sch. Admin.	2	3.3	0	0.0	2	2.9	4	2.6
School Nurse	0	0.0	0	0.0	0	0.0	0	0.0
Voc. Director	0	0.0	0	0.0	7	11.3	7	4.4
Dir., Sp. Ed.	0	0.0	0	0.0	4	6.5	4	2.6
Sch. Soc. Worker	0	0.0	0	0.0	0	0.0	0	0.0
Sch Attend Officer	0	0.0	0	0.0	0	0.0	0	0.0
Dept Chairman	6	10.2	4	12.5	21	33.9	31	19.5
Other	6	10.2	5	15.6	6	9.7	17	10.6
Not Marked	40	67.8	22	68.8	27	43.5	89	55.9
	59		32		68		159	

N = frequency of responses

It is apparent that vocational teachers of the disadvantaged and handicapped in this study have remained primarily in teaching capacities as opposed to administrative or other educational activities. Some differences among the three categories of teachers may be noted. Teachers of multi-population programs seemed to have other experiences in education more often than the other two categories of teachers. When a teacher had another experience in education besides teaching, it was most often that of department chairmanship.

Work Experience. The amount and kind of actual work experience has traditionally been a criterion for identifying and certifying vocational teachers. Since the teachers in this study technically are vocational teachers, an attempt was made to determine the occupations in which the teachers had prior experiences. Teachers were asked to indicate all the job titles of the last three jobs (other than education) that they had held. For each of the three categories of teachers, jobs held were classified into the U.S.O.E. Occupational Code (Table 7).

Trade-related jobs were the most frequently reported for each of the categories of teachers, while health occupations were least frequently indicated. An analysis of the jobs held indicated that 62 of the teachers had all of their reported occupational experience in one occupational area which would indicate depth of occupational experience. On the other hand, 67 of the teachers had occupational experience in more than one occupational area, which would indicate breadth of occupational experience. Only 24 teachers did not indicate having had some work experience.

TABLE 7
JOBS REPORTED BY TEACHERS OF DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

Occupational Classification	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-Population (62)	
	N	Percent	N	Percent	N	Percent
Agriculture	4	6.8	1	3.1	7	11.3
Home Ec.	13	22.3	4	12.5	4	6.5
Business & Office	26	44.1	10	31.3	16	25.8
Distributive	6	10.2	14	43.8	31	50.0
Health	1	1.8	2	6.3	0	0.0
Trade & Industry	45	76.3	15	46.9	45	72.6
Technical	4	6.8	5	15.6	7	11.3
Professional	11	18.6	8	16.0	10	16.1
Not Marked	6	10.2	6	18.8	12	19.4
	116		65		142	

N = frequency of responses

The diversity of occupational experience included in the population was substantial. Below is a sample of the occupations reported:

mechanic	social caseworker
secretary	recreation director
sales person	probation officer
laundry worker	mailclerk
construction worker	alteration lady
janitor	grinder
assembly line worker	music teacher
minister	railroad clerk
restaurant manager	deputy sheriff
farm manager	engineering research technician
real estate broker	porter
methods engineer	barber
billing clerk	bookkeeper
concrete finisher	automotive service manager
waitress	service station attendant

Program Information

Program data were gathered in order to present a composite picture of the nature of the vocational education efforts for disadvantaged and handicapped students. An attempt was made to inquire about program characteristics which were not evident from standard reporting forms. Such characteristics included objectives, student identification procedures, program content, supplementary student assistance provided, and program evaluation.

Two points of clarification are in order before the presentation of program data. First, the vocational education efforts described in this study are referred to as programs since this is the generic term applied to vocational education efforts having more than one class period of instruction per day. However, in some cases the data refer to single classes serving a disadvantaged and/or handicapped group of students.

Second, data received concerning student enrollments were determined not to be valid due to some misunderstandings of the specific information requested. These data are available, however, through the state and federal reporting system.

Program Objectives Identification. Five possible program objectives were identified from the literature and presented to the population for response:

1. To train students adequately for job entry
2. To increase student competencies in academic areas
3. To provide social adjustment and self realization skills
4. To assist students in developing the ability to make decisions regarding future goals
5. To provide special education needs for the physically and mentally handicapped.

Summary data concerning this question are presented in Table 8.

Teachers were asked to indicate which, if any, of the objectives were appropriate for their programs. Providing social adjustment and self-realization skills was the most frequently cited objective while providing educational needs for physically and mentally handicapped was the least.

When the population was analyzed by student groups served, several interesting comparisons emerged. Providing social adjustment and self-realization skills was cited most frequently by teachers of programs for the disadvantaged and teachers of multi-population programs. However, that objective was infrequently cited by teachers of the handicapped. On the other hand, providing special educational needs for physically and mentally handicapped was most frequently cited by teachers of the handicapped and far less frequently by teachers of the other two groups.

Training students adequately for job entry has long been a major objective of vocational education. Teachers of multi-population programs supported this objective by indicating it was an objective of their program in almost 90 percent of the cases. On the other hand, teachers of dis-

TABLE 8
PROGRAM OBJECTIVES IDENTIFIED BY TEACHERS OF DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Pop. (47)		Total (112)	
Program Objectives	N	Percent	N	Percent	N	Percent	N	Percent
To train students adequately for job entry	29	69.0	17	73.9	42	89.4	88	78.6
To increase students level of competency in academic areas	22	52.4	16	69.6	33	70.2	71	63.4
To provide social adjustment and self-realization skills	36	85.7	15	65.2	46	97.9	97	86.6
To assist students in developing an ability to make decisions about future goals	35	83.3	14	60.9	42	89.4	91	81.3
To provide special education needs for physically and mentally handicapped	12	28.6	19	82.6	35	74.5	66	58.9
Other	3	7.1	5	21.7	13	27.7	21	18.8
Invalid	1	2.4	0	0.0	0	0.0	1	.9
Total	138		86		211		435	

N = frequency of responses

advantaged and teachers of the handicapped cited this objective fewer times, 69 percent and 74 percent, respectively. In view of the genesis of these programs in vocational education, it is significant to note that job training was not a universal objective of all the programs.

Another objective in which considerable variation occurs is assisting students with developing ability to make decisions about future goals. Teachers of the disadvantaged and teachers of the multi-population programs both indicated this objective to be important, with 83.3 percent and 89.4 percent selecting it respectively. However, only 60.9 percent of the teachers of the handicapped indicated this to be an objective of their program.

Variations in program goals do differ according to the population to which the program is directed. However, it should be noted that when the population is viewed as a whole all goals were cited at least 50 percent of the time. Hence, there is overlapping of goals for each of the three types of programs under study. Further, when the responses are analyzed by individual groups served, except for one objective, which was specifically directed toward programs for the handicapped, all other objectives were indicated as important at least 60 percent of the time by the respondents. Therefore, while variations in program objectives among the types of programs and the types of students do occur, the frequency of the overlap suggests that perhaps there is similarity across program objectives.

Finally teachers were provided the opportunity to add program objectives not included in the five presented. While many of the added objectives were clearly related to vocational education, some were not. Sample objectives that were added include:

Personal development
Development of good work habits and supervision
Integration of students into regular vocational programs
Keeping students in school
Recreation program for the handicapped
Wise use of leisure time.

Program Objectives Achievement. Frequency counts of how well the teachers perceived they were achieving the five objectives are presented in Table 9. Interpretation of this data must be undertaken cautiously and by each objective individually. It is apparent that the teachers generally feel that they were achieving the objectives to an average or above average extent. The extremes, both high and low, were far less frequently indicated.

Individuals/Agencies Responsible for Identifying Potential Students. The vocational education commitment to providing programs for disadvantaged and handicapped students should indicate that there are available identifiable agencies and/or individuals charged with responsibility for identifying students for the programs. Teachers of the programs were asked to identify which agency(ies) and/or individual(s) were primarily responsible for identifying students for their particular programs (Table 10). Considering the entire population, almost 50 percent of the teachers indicated that the school counselor was an individual responsible for the student identification function. Interestingly, almost one-third of the teachers indicated that some other individual was responsible for identifying students other than the choices provided in the instrument. All the other choices provided received a relatively small number of responses. For example, while 50 percent indicated the school counselor to be a most important individual and/or agency, the second most frequent response was the teacher himself

TABLE 9

PROGRAM OBJECTIVE ACHIEVEMENT PERCEIVED BY ALL VOCATIONAL TEACHERS OF DISADVANTAGED, HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Extent of Achievement											
	Excellent		Above Average		Average		Below Average		Poor		Total Responses	
Program Objective	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
To train the student adequately for job entry	16	19.1	28	33.3	31	36.9	7	8.3	2	2.4	84	100.0
To increase the students level of competency in academic areas	2	2.8	24	33.8	27	38.0	7	9.9	1	1.4	71	100.0
To provide social adjustment & self realization skills	13	13.8	49	52.1	29	31.0	3	3.1	0	0.0	94	100.0
To assist students in developing an ability to make decisions regarding future goals	3	3.5	37	42.5	41	47.1	4	4.6	2	2.3	87	100.0
To provide special education needs for the physically handicapped	12	20.7	23	39.7	14	24.1	6	10.3	3	5.2	58	100.0
Other	10	30.3	16	48.5	6	18.2	1	3.0	0	0.0	33	100.0
Total	56		177		158		28		8		427	

N = frequency of responses

TABLE 10
AGENCIES USED FOR IDENTIFYING STUDENTS FOR DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Agency	N	Percent	N	Percent	N	Percent	N	Percent
School Counselor	29	69.0	8	34.8	17	36.2	54	48.2
Employ Sec. Div.	0	0.0	0	0.0	0	0.0	0	0.0
You	6	14.3	1	2.4	8	17.0	15	13.4
Rehab. Office	1	2.4	1	2.4	0	0.0	2	1.8
Voc. Director	1	2.4	1	2.4	5	10.6	7	6.3
Other	11	26.2	18	78.3	7	14.9	36	32.1
Not marked	1	2.4	1	2.4	14	29.8	16	14.3
Invalid	0	0.0	0	0.0	1	0.0	1	.9
Total	49		30		52		131	

N = frequency of responses

(13.4 percent). Surprisingly, only very small numbers of teachers indicated the Employment Securities Division, the Rehabilitation Office, or the Vocational Director as the prime individual/agency for identifying students. The relatively large number who checked the "Other" category may indicate that the traditional agencies or individuals associated with student identification are not applicable to these programs.

Teachers of the disadvantaged and teachers of the multi-population both indicated far more personal involvement in identifying students than did teachers of the handicapped. The "Other" category played a far greater role for teachers of the handicapped (78.3 percent) than it did for teachers of the disadvantaged and teachers of multi-population programs.

Examples of responses in the "Other" category include:

Parental request
Social background
School psychologist
Academic record
State guidelines
Home visitation
Probation department

Methods of Identifying Potential Students.

It was felt that there was a variety of means of identifying students who could and should be enrolled in programs for the disadvantaged and handicapped. Consequently, teachers were asked to indicate the technique used for identifying students (Table 11). Tests and referrals were the overwhelmingly chosen methods. Moreover, the importance placed upon identifying students was apparent by the fact that less than 21 percent of the respondents indicated that no formal method was used.

TABLE 11
METHODS OF IDENTIFYING STUDENTS FOR DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Method	N	Percent	N	Percent	N	Percent	N	Percent
Interest Inventory	8	19.0	0	0.0	7	14.9	15	13.4
Aptitude and/or Intelligence test	22	52.4	20	87.0	38	80.9	80	71.4
Referrals-teachers, counselors, parents	37	88.1	20	87.0	42	89.4	99	88.4
No formal method used	0	0.0	1	4.3	1	2.1	2	1.8
Student choice	26	62.0	0	0.0	18	38.3	44	39.3
Other	4	9.6	2	8.7	11	23.4	17	15.2
Total	97		43		117		257	

N = frequency of responses

When the total group of teachers is broken down by the populations served, a somewhat clearer perspective is obtained. Teachers of the disadvantaged and teachers of the multi-population programs indicated that 25.9 percent and 38.3 percent respectively utilized student choices as a method of identifying potential students. In no instances did teachers of the handicapped indicate they utilized interest inventories or student choice. While it might be expected that aptitude and/or intelligence tests would be used frequently by teachers of the handicapped, it is somewhat interesting to note that the same instruments were selected for use by 52.4 percent of the teachers of the disadvantaged and by 89 percent of teachers of multi-population programs.

Nature of Program Content. Of particular concern to vocational education is the nature of the instructional content provided in programs for disadvantaged and handicapped students (Table 12). Question options were:

1. Remedial basic skills
2. Specific job training
3. Personal and social adjustment skills
4. Career information
5. Modified content from other subject areas
6. On-the-job training
7. Other

The population indicated career information and personal and social development as the two areas receiving primary emphasis. All of the options were checked by at least 50 percent of the population.

Moreover, when the teachers were categorized by student group population, only modified content was checked by less than 50 percent of the respondents. Career information was the content area most frequently cited by teachers of the disadvantaged (85.7 percent). Personal and social

development was the area of content most frequently cited by teachers of the handicapped (91.3 percent). Remedial basic skills and career information were the two areas most frequently cited by teachers of multi-population programs. Thus, while all the areas of content received large numbers of responses, each of the categories of teachers cited a different area of content most frequently.

TABLE 12
CONTENT INCLUDED FOR STUDENTS IN DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Content	N	Percent	N	Percent	N	Percent	N	Percent
Remedial basic skills	19	45.2	20	87.0	36	76.6	75	67.0
Specific job training skills	18	42.3	14	60.9	27	57.4	59	52.7
Personal and social development	28	66.7	21	91.3	34	72.3	83	74.1
Career information	36	85.7	12	52.2	36	76.6	84	75.0
Modified content	14	33.3	14	60.9	31	66.0	59	52.7
On-the-job training	21	50.0	15	65.2	33	70.2	69	61.6
Other	4	9.5	5	21.7	3	6.4	12	10.7
Total	140		101		200		441	

N = frequency of responses

Special Assistance for Students. Disadvantaged and handicapped students often require special assistance not usually required of other students (Table 13). Five kinds of special assistance that could be provided were identified in the questionnaire:

1. Tutorial services
2. Diagnostic services
3. Health services
4. Language development classes
5. Cultural awareness classes

Teachers were asked to check all items that applied. Diagnostic services and language development classes were the most frequently cited services provided. The least frequently cited option was cultural awareness classes. The same trends were observed when the population was broken down by student groups served.

A relatively large number of teachers indicated that "Other" services were provided. These included physical and occupational therapy, career center courses, sign language, on-the-job training, training for job interviews, NYC, etc.

Program or Class Evaluation. The evaluation techniques used in programs for the disadvantaged and handicapped may, because of the type of students involved, be different from those used to assess other programs and classes.

Teachers were asked to check the two most important program evaluation methods from a list of six that were identified from the literature (Table 14). Responses including more than two items checked were invalidated. Observations of student performance was the most frequently cited method of evaluation and standardized achievement tests was the least frequently cited method. Teacher-made tests and assessments by persons outside school, such as employers were cited by an equal number of respondents and ranked second.

TABLE 13
SPECIAL ASSISTANCE PROVIDED FOR STUDENTS IN DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Special Assistance	N	Percent	N	Percent	N	Percent	N	Percent
Tutorial services	7	16.7	5	21.7	16	34.0	28	25.0
Diagnostic services	10	23.8	16	69.6	21	44.7	47	42.0
Health services	10	23.8	11	47.8	16	34.0	37	33.0
Language development classes	19	45.2	13	56.5	15	31.9	47	42.0
Cultural awareness classes	4	9.5	0	0.0	7	14.9	11	9.8
Other	5	11.9	11	47.8	7	14.9	23	20.5
Not marked	13	31.0	1	4.3	0	0.0	14	12.5
Total	68		57		82		207	

N = frequency of responses

TABLE 14
EVALUATION TECHNIQUES USED BY TEACHERS OF DISADVANTAGED, HANDICAPPED, AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Evaluation Techniques	N	Percent	N	Percent	N	Percent	N	Percent
Teacher made student achievement tests	16	38.1	2	8.7	9	19.1	27	24.1
Standardized student achievement test	2	4.8	0	0.0	3	6.4	5	4.5
Observation of student performance	27	64.3	10	43.4	25	53.2	62	55.4
Student assessment by outside persons	12	28.6	4	17.4	11	23.4	27	24.1
Formal evaluation of program by school as outside agency	1	2.4	3	13.0	2	4.3	6	5.4
Accreditation body, such as North Central	3	7.1	0	0.0	4	8.5	7	6.3
Other	1	2.4	0	0.0	0	0.0	1	.9
Invalid	9	21.4	13	56.5	1	2.1	23	20.5
Not marked	0	0.0	1	4.3	0	0.0	1	.9
Total	71		33		55		159	

N = frequency of responses

Occupational Activities Provided

Teachers were requested to indicate the kinds of occupational activities that were provided students in their programs (Table 15). The options were:

1. Paid work experience during the school day
2. Paid work experience after school hours
3. Unpaid work observation
4. In-school vocational laboratory activities
5. No occupational activities were provided

The rationale underlying the inclusion of this question was that the population of disadvantaged and handicapped students could generally benefit from occupationally related activities.

It was noted when the population was viewed as a whole, less than 15 percent of the teachers indicated that no occupational activities were provided. The greatest number of occupational activities fell in the category of providing students with in-school laboratory activities (38 percent). Paid work experience was indicated to be included in over 28 percent of the programs. The categories of paid work experience after school hours and unpaid work observation were both indicated to be a part of less than 10 percent of the programs.

When analyzed according to the student groups served, a somewhat different picture is presented. Teachers of the disadvantaged indicated that work in an in-school vocational laboratory was present in 67 percent of the programs while teachers of the handicapped indicated that such activity was present in less than 20 percent of the programs. On the other hand paid work experience during school hours was twice as prevalent in

TABLE 15
OCCUPATIONAL ACTIVITIES PROVIDED FOR STUDENTS IN DISADVANTAGED, HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Occupational Activities	N	Percent	N	Percent	N	Percent	N	Percent
Paid work experience during school day	9	21.4	10	43.5	13	27.7	32	28.6
Paid work experience after school hours	2	4.8	3	13.0	3	6.4	8	7.1
Unpaid work observation as a part of the curriculum	6	14.3	0	0.0	0	0.0	6	5.4
No student occupational activities	6	14.3	7	30.4	3	6.4	16	14.3
In school vocational laboratory experiences	28	66.7	4	17.4	11	23.4	43	38.4
Invalid	2	4.8	0	0.0	19	40.4	21	18.8
Not marked	3	7.1	0	0.0	0	0.0	3	2.7
Total								

N = frequency of responses

programs for the handicapped as for programs for the disadvantaged. Furthermore, almost one third of the programs for the handicapped contained no occupational activity. Teachers of multi-population programs represented a less extreme position than the other two groups.

Responses to this item seemed to indicate that there are distinct operational, and perhaps philosophical, differences between programs for the disadvantaged and programs for the handicapped. The study did not yield data which would explain why these differences occur.

Additional Program Data. Several additional questions were included in order to provide a more comprehensive picture of the vocational education programs for the disadvantaged and handicapped. Because of the nature of the responses, the items were not broken into the three categories of student groups served.

The distribution of program scheduling arrangements is shown below. By far, the most frequent scheduling arrangement is based on the traditional academic year. Less than 25 percent of the programs are operated on a 12 month basis and only one program was offered regularly during the summer.

Program Scheduling	Number of Programs
Summer	1
Academic year	81
12 month	24

In order to determine how long the programs had been in existence, teachers were asked to indicate when their programs had begun. Some interesting results are evident when the starting dates are classified into the years of existence of various federal acts for vocational education. Between the years 1943, when the first program in this study was begun, and fall of 1963, just prior to the passage of the 1963 Vocational Education Act, ten programs were initiated. During the years under which 1963 Vocational Education Act was operational, 26 of the programs were begun. Since the passage of the 1968 Vocational Education Amendments, 67 of the programs were started. The impact of the various legislation relating to vocational education seems readily apparent in the starting dates of the programs included in this study.

Program Starting Date	Number of Programs
Fall, 1973	7
Spring, 1973	1
Fall, 1972	8
Fall, 1971	21
Spring, 1971	2
Summer, 1970	2
Fall, 1970	18
Spring, 1970	2
Fall, 1969	5
Spring, 1969	1
Summer, 1968	2
Fall, 1968	8
Spring, 1968	1
Fall, 1967	3
Fall, 1966	4
Fall, 1965	6
Spring, 1965	1
Fall, 1964	1
Fall, 1963	3
Spring, 1963	2
Fall, 1961	1
Fall, 1959	1
Fall, 1956	1
Fall, 1954	1
Fall, 1943	1
Invalid	2
Not used	6

Student Information

The student population which has been classified as disadvantaged and/or handicapped has been the subject of extensive prior investigations and hence, was not the major focus of this study. Further, there are existing definitions which describe the parameters of disadvantaged and handicapped. Therefore, data collected regarding students were limited to those which had a direct bearing on the programs. These data were the classification of the program based on the nature of the students' disadvantagement or handicap, the point at which students could enter the programs, and the point at which students were to exit the programs.

It should be noted that the teachers which constituted the population of the study exhibited some reluctance to indicate that their program was serving only either disadvantaged or handicapped students. The teachers seemed to feel that their programs were serving both disadvantaged and handicapped students in many cases. If such is the case, then it might be argued that the definitions imposed by federal and state guidelines are arbitrary and do not facilitate programs or serve students.

Programs Classified by Student Population Served. It is widely recognized that there are many types of disadvantagement and many types of handicaps. In an effort to obtain information as to the nature of the students served through vocational education for the disadvantaged and handicapped, the population was asked to indicate how many students were being served within the following classifications: urban disadvantaged, rural disadvantaged, physically handicapped, and mentally handicapped. The numbers are indicated below; however, care must be taken in interpreting the data since many teachers indicated only that they were serving students in a given classification and not how many.

Student Classification	Number Served
Urban Disadvantaged	1,662
Rural Disadvantaged	464
Physically Handicapped	98
Mentally Handicapped	1,208

Apparently, the greatest numbers of students served are the urban disadvantaged and mentally handicapped. Proportionally, very few programs seem to be organized for the physically handicapped.

Minimum Entry Grade/Age. Date pertaining to the various entry level ages and/or grades for programs included in this study are presented below. Programs are organized in various ways so that in Indiana student entry ranges from kindergarten to the 12th grade. The most frequent entry point indicated was the 9th grade. Some programs do not use grade levels to determine the entry point and either use the student's age or have no specified entry point. The number of different entry points is a further indication of the great variety of programs in existence.

Minimum Entry Point	Number
Grade 12	6
Grade 11	12
Grade 10	31
Grade 9	62
Grade 8	9
Grade 7	28
Kindergarten	2
Age 16	3
Age 15	5
Age 14	1
Age 6	1
No answer	7
No level indicated	19

Duration of Student Enrollment. The next step after determining the level at which students may enter a given program is discerning how long students may remain in the program. The summary data pertaining to this question is indicated on the following page. While the most frequent

response was that students could remain in the program as long as the program was meeting the students' needs, the second most frequent response was that students could remain in the program for one academic year only.

Duration of Student Enrollment	Number
Summer only	0
Academic year only	37
Summer and academic year	6
Indefinitely	61
Other	3

Termination Point of Students. The final step in explicating the students' enrollment in programs for the disadvantaged and handicapped is to show the exit points. In other words, at what point are students supposed to leave the special program? The appropriate summary data are present in Table 16. Nearly two-thirds of the respondents indicated that the termination point was expected to be graduation. Interestingly, one-third of the teachers indicated that the termination point for students is when students drop-out of school. Considering the numerous responses provided in this question it is obvious that there are more termination points. Hence, for some students they may terminate when they graduate, while for others, termination is when a program is over.

It is evident from the data presented in Table 21 that considerable variations occur among the three types of programs. Completion of course requirements is apparently a much greater concern of the teachers of the disadvantaged and teachers of the handicapped than teachers of multi-population programs. In the latter case, graduation seems to be a greater concern.

TABLE 16
EXPECTED TERMINATION POINT FOR STUDENTS ENROLLED IN DISADVANTAGED, HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (42)		Teachers of Handicapped (23)		Teachers of Multi-Population (47)		Total (112)	
Termination Point	N	Percent	N	Percent	N	Percent	N	Percent
Completion of course requirements	24	57.1	22	95.7	18	38.3	64	57.1
Graduation	24	57.1	14	60.9	34	72.3	72	64.3
Success in conventional program/class	10	23.8	14	60.9	18	38.3	42	37.5
When program is over	18	42.9	6	26.1	14	29.8	38	33.9
When they dropout of school	13	31.0	8	34.8	16	34.0	37	33.0
Invalid	0	0.0	0	0.0	1	2.1	1	.9
Total	89		64		101		254	

N = frequency of responses

Teacher Education Information

While the teacher is undoubtedly the key factor in providing vocational education to disadvantaged and handicapped students, the teacher's success, or lack of it, is likely attributable to prior teacher education experience. Similarly, teacher education must be built in part upon the perceptions of currently practicing teachers regarding what should be provided through teacher education services.

The great range of background factors of the vocational teachers of the disadvantaged and handicapped represents numerous and diverse teacher education experiences. It is therefore, important to attempt to assess the nature of teacher education experiences which have been perceived to have been helpful to these teachers and to question the teachers regarding what additional teacher education-related experiences would be helpful to them.

Professional Education Experiences of Great Benefit. Teacher education efforts may generally be classified as courses, workshops, independent study, consulting services, and reference materials. Teachers were asked to indicate those experiences which were of great benefit to them in establishing or conducting their programs and to cite such experiences specifically (Table 17). It was hoped that from the response to this question ideas regarding future teacher education endeavors might be generated.

The options most frequently cited were university courses and special workshops. Both were checked by over 45 percent of the respondents. The specific experiences represented a wide range of courses and workshops. Courses included: student teaching, learning disabilities, psychology, problems in vocational education, and special education methods. Workshops included: Department of Public Instruction workshops, AMIDS, In-Service days, technical content workshops and national conventions.

Consultant services were indicated to be of great benefit by 12.4 percent of the respondents. Examples of consultant services were: fellow teachers, school administrators, Department of Public Instruction consultants, and suppliers. Reference materials cited by 22.2 percent of the teachers included: trade materials, textbooks, curriculum guides from other programs and states, and journal articles.

TABLE 17
PROFESSIONAL EXPERIENCES PERCEIVED TO BE OF GREAT BENEFIT BY TEACHERS OF DISADVANTAGED, HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-Population (62)		Total (153)	
Professional Experiences	N	Percent	N	Percent	N	Percent	N	Percent
Special workshop	31	52.5	10	31.3	28	45.2	69	45.1
University course	25	42.4	22	68.8	24	38.7	71	46.4
Individual study	4	6.8	6	18.6	13	21.0	23	15.0
Consultant Services	3	5.1	4	12.5	12	19.3	19	12.4
Reference Material	13	22.0	4	12.5	17	27.4	34	22.2
Not marked	10	16.9	6	18.6	1	1.7	17	11.1
Total	86		52		95		233	

N = frequency of responses

The least frequently cited professional experience was individual study. Work experiences and independent searches for materials appeared to be the most frequent examples of individual study.

Unlike other questions, the responses to this question differ substantially among the categories of teachers. Over 50 percent of the teachers of the disadvantaged selected special workshops while only about 30 percent of the teachers of the handicapped made that selection. Teachers of the handicapped selected university courses much more frequently (58.8 percent) than did teachers of the disadvantaged (42.4 percent) and teachers of multi-population programs (38.7 percent). Teachers of multi-population programs apparently derived much greater benefit from consultant services (19.3 percent) than did teachers of the disadvantaged (6.1 percent).

Professional Experiences Perceived to be Needed. Contrasted with teachers' perceptions regarding prior professional experiences are those which are important to provide in the future. Teachers in the population were asked to indicate those experiences that would be helpful to them (Table 18). Eight options were provided and respondents were asked to check all that applied.

Clearly, one experience was strongly desired; 70 percent of the population indicated the desirability of visitation to other programs as a needed professional experience. Workshops concerning teaching techniques and curriculum development were also selected at a high frequency (58.1 percent and 45.1 percent respectively). On the other hand, both options calling for internships were cited as needed by less than seven percent of the respondents.

Perceptions of needed experiences differed among the categories of teachers. While visitation to other programs was indicated as desirable

TABLE 18
PROFESSIONAL EXPERIENCES PERCEIVED TO BE NEEDED BY TEACHERS OF DISADVANTAGED HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-Population (62)		Total (153)	
Professional Experiences	N	Percent	N	Percent	N	Percent	N	Percent
Special workshop teaching techniques	40	67.8	17	53.1	32	51.6	89	58.2
Special workshop curriculum development	26	44.1	19	59.4	24	38.7	69	45.1
Special workshop social problems	14	23.7	10	31.3	19	30.6	43	28.1
Visits to other programs in state	42	71.2	23	71.9	45	72.6	110	71.9
Consultant services	12	20.3	7	21.9	18	29.0	37	24.2
Special workshop program operation	14	23.7	11	34.4	23	37.1	48	31.4
Internship-living in disadvantaged community	4	6.8	2	6.3	4	6.5	10	6.5
Internship-teaching students	3	5.1	3	9.4	4	6.5	10	6.5
Other	1	1.7	2	6.3	5	8.1	8	5.2
Total	156		94		174		424	

N = frequency of responses

by over 70 percent of the teachers of the disadvantaged and teachers of multi-population programs, only 39 percent of the teachers of the handicapped selected that option the latter group appeared most interested in teaching techniques and curriculum development workshops.

Interestingly, no teacher category rated consultant services higher than fifth among the options and only 11 percent of the teachers of the handicapped selected this item as desirable.

In general, the population seemed to want to know what others were doing. Then they wanted to know what to teach and how to teach it.

Materials Perceived to be Helpful. Teachers of the disadvantaged and handicapped were asked to indicate which of seven types of instructional materials would be helpful to them (Table 19). In general, the teachers seemed to be interested in receiving all types of instructional materials assistance. Only Manuals for Program Operation were not cited by at least 30 percent of the respondants. Several different groupings of preferences occurred within each of the categories of teachers studied. Audio-visual materials were cited most frequently by teachers of the disadvantaged. Audio-visual and occupational training plans were the two most frequently cited categories of instructional materials by teachers of the handicapped. Finally, occupational training plans and textual materials were the two most frequently cited material needs of multi-population program teachers.

TABLE 19
MATERIALS PERCEIVED TO BE HELPFUL BY TEACHERS OF DISADVANTAGED, HANDICAPPED AND MULTI-POPULATION PROGRAMS

	Teachers of Disadvantaged (59)		Teachers of Handicapped (32)		Teachers of Multi-Population (62)		Total (153)	
Materials	N	Percent	N	Percent	N	Percent	N	Percent
Bibliographies of available materials	27	45.8	17	53.1	29	46.8	73	47.7
Curriculum guides	25	42.4	13	40.6	25	40.3	63	41.2
Audio-visuals	38	64.4	19	59.4	32	51.6	89	58.2
Text materials geared to the students' needs	24	40.7	15	46.9	38	61.3	77	50.3
Occupational training plans	28	47.5	19	59.4	40	64.5	87	56.9
Manuals for program operation	15	25.4	5	15.6	24	38.7	44	28.8
Others	4	6.8	3	9.4	9	14.5	16	10.5
Total	161		91		197		449	

N = frequency of responses

Summary of On-Site Visits

Members of the project staff visited seven schools in various sections of the state in order to interview some teachers of disadvantaged and handicapped students. Programs visited included: remedial English, industrial vocational education, intensive office laboratory and print shop. Interviews provided additional information that had not been included in questionnaire responses.

Teachers were eager to discuss their programs and commented positively on most aspects of their involvement. All teachers interviewed indicated that they had adequate facilities and sufficient classroom time for students. Because they were meeting their school's objectives, most teachers felt their programs would be continued without federal support. Satisfaction with their accomplishments was apparent.

Regarding suggestions for preparing other teachers to assume similar positions, recommendations included: specific training in special education; university courses; and workshops for teachers of the disadvantaged. Kinds of disadvantagement and handicaps were readily identified, as well as specific activities designed to improve students' deficiencies. With reference to characteristics to be possessed by teachers of the disadvantaged and handicapped, the following were considered to be of paramount importance: patience, fairness, dedication, and respect for each student as an individual.

It seemed to be the consensus of the group interviewed that the major problem encountered was the lack of understanding and acceptance on the part of faculty members regarding their students and their programs. Communication appeared to be the primary reason. In order to alleviate this

problem, the following suggestions were made: working more closely with faculty members; written communications such as bulletins, brochures, bulletin boards; involving teachers in team teaching efforts, where feasible; and publicizing accomplishments of disadvantaged and handicapped students.

FINDINGS, GENERALIZATIONS, AND RECOMMENDATIONS

The purpose of this study was to examine vocational education efforts for the disadvantaged and handicapped in order to:

1) classify organizational arrangements
2) identify problems and problem areas encountered by teachers
3) assess teacher education experiences of teachers
4) present recommendations for professional development

To achieve these objectives systematic procedures were followed and data were gathered and analyzed. The nature of the objectives and the state-of-the-art with regard to research in vocational education pertaining to the disadvantaged and handicapped, indicated that a large quantity of data would be gathered and would be presented in descriptive form.

In this section are contained statements of findings and generalizations. The following are the principal findings revealed by the study based on the categories of data collected.

Findings

Teacher Information. Vocational teachers of the disadvantaged and handicapped students represent a wide range of teaching experiences with the predominant area being that of special education. While the teachers are designated as vocational, their prior teaching experience appears to be largely in non-vocational subject areas. The exception to this observation was the trade and industrial education field in which sustantial numbers of teachers of disadvantaged and handicapped have had prior experience. Similar patterns are evident when the teachers are viewed in terms of their areas of teacher certification.

As a group, the teachers are somewhat recent to the field of education withthe majority having less than 10 years of teaching experience. This observation is consistant with data which indicated that over 50 percent of the teachers were less than 40 years of age.

Consistent with the pattern of teaching certificates held and prior teaching experience is the distribution among the kinds of teaching certificates held by vocational teachers of the disadvantaged and handicapped. Over 80 percent of the teachers held provisional or professional certificates. This observation is inconsistent, however, with the general pattern of teacher certification in vocational education, especially trade and industrial teachers.

Teachers of the disadvantaged and handicapped seem primarily to come from the ranks of teaching and have held only a limited number of other education positions. Those who had other experiences in education had been department chairmen, primarily. However, the investigation did reveal that the teachers exhibited breadth and depth of non-teaching experience. Interestingly, the nature of the non-teaching occupational experience recorded by the teachers varied according to the kind of program with which they were associated. The wide range of jobs reportedly held by the teachers seemed to indicate that the teachers did not necessarily obtain their occupational experience within one occupational cluster. For all three groups of teachers, jobs seemed to be most frequent in the trade and industrial education cluster. Further, few teachers appeared to have had experience in agriculture, health, technical, or professional occupations.

Program Information. Programs for the disadvantaged and handicapped in vocational education seemed to possess multiple program objectives.

While it might seem that preparing students adequately for job entry would be the overriding objective in most cases, it was noted that this objective was cited only third most frequently among the five options. In none of the three classifications of teachers was this objective cited most frequently. Interestingly, the teachers seemed to feel that they are achieving the stated objectives to either an excellent or average degree. Few teachers indicated below average or poor achievement of program objectives.

The students enrolled in vocational programs for the disadvantaged and handicapped seemed to be identified primarily by individuals and/or agencies other than the individual teacher. Furthermore, two methods seemed to be utilized primarily in identifying students: tests and referrals. Hence, it would appear that the vocational teacher of the disadvantaged and handicapped had relatively little input into whom they were supposed to teach.

Instructional content provided for disadvantaged and handicapped students appears to emphasize career information and personal and social development; content in other areas such as remedial basic skills and specific job training was emphasized to a lesser degree. Hence, the content indicated is somewhat consistent with stated program objectives. In addition, a wide variety and significant amount of special assistance seemed to be provided to the students. Such assistance included tutorial services, diagnostic services, health services, language development classes and cultural awareness classes. The latter kind of assistance however, was infrequent when compared to the other kinds of special assistance.

While standardized tests appear to be an important tool for the identification of students, such instruments were rarely used in the

evaluation of students enrolled in the programs. Primary evaluation techniques by the teachers were teacher-made tests, observation of student performance, and assessment by outside persons.

Occupational activities appear to be a part of programs for the disadvantaged and handicapped in many cases. Primarily, these activities take this form of paid work experience during the school day and in-school laboratory experience. Programs for the handicapped seemed least likely to offer occupational activities for the students.

It is apparent that vocational education for disadvantaged and handicapped date far before relatively recent concern for disadvantaged and handicapped students in vocational education. However, it should be noted that the majority of the programs have been begun since the passage of 1968 Amendments to the Vocational Education Act of 1963. In fact, only seven of the programs were reported to have begun prior to the 1963 Vocational Education Act.

Student Information. Among the students served the primary groups in terms of numbers enrolled are the urban disadvantaged and the mentally handicapped. Proportionately the physically handicapped students are the least well served by these programs. Students may enter the program from ages ranging from 6 to 16 and, in many cases may remain indefinitely. However, in over 1/3 of the programs students are limited to one year of enrollment in the program. The expected termination point for most students enrolled in the programs is graduation. However, provisions are made for students to terminate a course requirements. It is important to note, however, that "when the program is over" and "when they drop out of school" was indicated as a reasonable termination point by 1/3 of

the teachers, respectively. This response appears to be inconsistent when compared to statements of program goals and instructional content.

Teacher Education Information. University courses and special workshops were the most frequently chosen teacher education experiences that were perceived to be of great benefit to the teachers of disadvantaged and handicapped students. However, neither experience was cited by a majority of the teachers as being of great benefit. On the other hand, the other choices (individual study, consultant services, and reference materials) received very low ranking. Considerable variation occurred among the three groups of teachers. For example, teachers of the handicapped were most amenable to university courses while teachers of the disadvantaged were most interested in special workshops. In all cases, consultant services were perceived to be of least benefit by the teachers.

When provided with the opportunity to indicate professional experiences that would be of benefit to them, the teachers reacted somewhat differently. Workshops again were highly favored; however, visits to other programs in the state were most desired. This was especially true among teachers of the disadvantaged and teachers of the multi-population programs. As might be expected among this population internships were not highly rated. Consultant services were a low choice when compared to other professional experience options provided.

The vocational education teachers of the disadvantaged and handicapped seemed especially interested in obtaining all kinds of materials that might be available to help them in their programs. In essence, they are interested in bibliographies, curriculum guides, audio-visual aids, textual materials, and occupational training plans. The only kind

of materials not perceived to be especially important by teachers were manuals for program operation.

Generalizations

The generalizations reported below should be viewed with caution due to the nature of the population and possible non-response bias. The diversity of population noted in the demographic factors studied may limit the generalizability of the study to other populations, even though those populations may also be vocational teachers of the disadvantaged and handicapped. Moreover, the problems encountered in identifying the current population and the percentage of questionnaire returns may indicate that conclusions different from those reported are warranted.

1. Local communities in Indiana show a great variety of approaches in meeting the vocational education needs of disadvantaged and handicapped students. The diversity in teachers employed, program goals, and program characteristics seem to confirm this.

2. Vocational programs for the disadvantaged and handicapped in Indiana are significantly different in many respects from traditional vocational programs and, hence, are not easily comparable. Teacher backgrounds, program emphases, and program content seem to confirm this conclusion.

3. Vocational programs for the disadvantaged and handicapped are becoming institutionalized in the total effort in vocational education. The expansion of such efforts in recent years, the perceived success of the programs, and the school acceptance of the programs seem to lend credence to this conclusion.

4. Substantial differences exist in programs within each category of program (disadvantaged, handicapped, and multi-population) and across categories of programs. Hence, total planning for vocational education for the disadvantaged and handicapped, as well as evaluation, is made difficult. The numerous variables interacting in these programs appear almost to defy quantification.

5. Vocational teachers of the disadvantaged and handicapped can benefit from teacher education. The licensing status, age, and general acceptance of teacher education seem to suggest potential for additional professional development experiences to be provided.

6. Professional development for vocational teachers of the disadvantaged and handicapped must be based on the needs of students, teachers, and programs. The professional development experiences must take into consideration the different student populations served and the expressed needs of teachers.

Recommendations

1. A concerted effort should be made to accumulate on a continuing basis data concerning the efforts of vocational education for the disadvantaged and handicapped. Such data should include which school corporations are providing what services to what student populations.

2. Professional development needs of vocational education teachers should be analyzed and translated into meaningful teacher education experiences.

3. Teachers of the disadvantaged and handicapped should be told the expressed purposes of their programs and the specific populations they are to serve.

4. Licensure requirements for vocational teachers of the disadvantaged and handicapped should be examined in an attempt to assure competence across programs and student populations served.

5. A state-wide evaluation effort should be undertaken program by program to investigate achievement of program objectives.

6. A state-wide effort should be undertaken to establish communications among teachers of the disadvantaged and handicapped.

7. An investigation should be undertaken to determine the congruence of goals of programs for the disadvantaged and handicapped with the major goals of vocational education.

8. An effort should be made to provide additional programs for the physically handicapped.

9. Strong consideration should be given to supporting programs which accommodate students through graduation or articulation into other programs leading to graduation.

10. Strong state leadership should be provided to assist local education agencies in establishing and operating programs for the disadvantaged and handicapped.

It should be readily apparent from this study that the vocational education efforts for the disadvantaged are varied, localized, fragmented, and uncoordinated. While it is indeed admirable to encourage local efforts to meet local needs, it seems apparent that state-wide coordination is necessary if programs are to benefit from mutual experiences. The dedication of personnel involved is commendable, as is the creativity and support of local education agencies. The future success of vocational education for the disadvantaged and handicapped will largely be determined

by the extent to which a coordinated effort, including professional development, can be developed and maintained.

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APPENDIX

77

SURVEY OF PROGRAMS FOR
SPECIAL PEOPLE REQUIRING INTEREST-NEEDS-TRAINING

INSTRUCTIONS: Please respond to the following items. When you have completed the questionnaire, please return it in the enclosed postage paid envelope.

TEACHER INFORMATION

1. Name (Ms.)☐ (Mr.)☐ _____

2. Age (Check correct age range)

1) ☐ 21 - 29
2) ☐ 30 - 39
3) ☐ 40 - 49
4) ☐ 50 and over

3. School Corporation _____

4. School Name _____

5. Teaching Experience: Check those subject area(s) in which you have taught.

01) ☐ Art
02) ☐ Science
03) ☐ Business Education (non-reimbursed)
04) ☐ Business Education (reimbursed)
05) ☐ Home Economics
06) ☐ English, Journalism or Speech
07) ☐ Foreign Language
08) ☐ Industrial Arts
09) ☐ Mathematics
10) ☐ Elementary
11) ☐ Music
12) ☐ Physical Education
13) ☐ Social Studies
14) ☐ Special Education
15) ☐ Distributive Education
16) ☐ Trade & Industrial Education
17) ☐ Vocational Agriculture
18) ☐ Vocational Health Occupations
19) ☐ Industrial Cooperative Training
20) ☐ Other (specify)_____
21) ☐ Other (specify)_____

6. Please indicate the teaching area(s) in which you are certified to teach.

01) ☐ Art
02) ☐ Science
03) ☐ Business Education (non-reimbursed)
04) ☐ Business Education (reimbursed)
05) ☐ Home Economics
06) ☐ English, Journalism or Speech
07) ☐ Foreign Language
08) ☐ Industrial Arts
09) ☐ Mathematics
10) ☐ Elementary
11) ☐ Music
12) ☐ Physical Education
13) ☐ Social Studies
14) ☐ Special Education
15) ☐ Distributive Education
16) ☐ Trade & Industrial Education
17) ☐ Vocational Agriculture
18) ☐ Vocational Health Occupations
19) ☐ Industrial Cooperative Training
20) ☐ Other (specify)_____
21) ☐ Other (specify)_____

7. What specific type of Indiana teaching certificate do you now hold?

1) ☐ Limited
2) ☐ Provisional
3) ☐ Professional
4) ☐ Conditional
5) ☐ Other _____

8. Years of teaching experience. (Check correct experience range).

1) ☐ 1 - 3
2) ☐ 4 - 6
3) ☐ 7 - 9
4) ☐ 10 - 12
5) ☐ 13 - 15
6) ☐ 16 - 18
7) ☐ 19 years and over

9. Other Education Experience. (Check those education positions in which you have been employed on a full-time basis).

1) ☐ Guidance Counselor
2) ☐ School Administrator (Assistant Principal, Superintendent, etc.)
3) ☐ School Nurse
4) ☐ Vocational Director
5) ☐ Director of Special Education
6) ☐ School Social Worker
7) ☐ School Attendance Officer
8) ☐ Department Chairman (specify) _____
9) ☐ Other (specify) _____

10. Work experience. (Indicate the job titles of the last three jobs you have held other than education.)

Job Title _____

Job Title _____

Job Title _____

PROGRAM CLASSIFICATION

11. Programs for students with special needs are classified as disadvantaged or handicapped. Below are two definitions of the programs.

A program for the Disadvantaged is designed to serve persons with academic, socio-economic, cultural, or other handicaps that prevent them from succeeding in a regular vocational education or consumer and homemaking program. Included are persons whose needs for special programs or services result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large. It does not include persons suffering from physical or mental handicaps.

A program for the Handicapped is designed to serve persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or otherwise health-impaired who cannot succeed in a vocational or consumer and homemaking education program designed for persons without such handicaps.

A. What classes or programs do you teach that are directed specifically towards students with special needs? Please list them below.

B. Mark if the class is designed especially for disadvantaged students, handicapped students or if it is planned to meet the needs of both groups. In making your choice, refer to the definitions listed above for an accurate description of the groups.

Program or Class(es)	Disadvantaged	Handicapped	Both Disadvantaged & Handicapped
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐

PROFESSIONAL DEVELOPMENT

12. Indicate those experiences which were of great benefit to you in establishing or conducting your present program/class(es) for students with special needs.

1) ☐ Special Workshop (name and date)_____

_____

2) ☐ University Course (name and date)_____

_____

3) ☐ Individual Study (topic and date)_____

_____

4) ☐ Consultant Services (name and date)_____

_____

5) ☐ Reference Material_____

_____

13. What kind of professional assistance would be most helpful to you in improving your program/class(es) for students with special needs? (Check all that apply)

1) ☐ Special workshop concerned with teaching techniques for disadvantaged/handicapped students.
2) ☐ Special workshop for developing curriculum for disadvantaged/handicapped students.
3) ☐ Special workshop to help understand social problems of the disadvantaged/handicapped.
4) ☐ Provision for you to visit other programs similar to yours in the state.
5) ☐ Consultant services to your program.
6) ☐ Special workshop concerned with operating a program for disadvantaged/handicapped students.
7) ☐ Internship involving living in the community environment of the disadvantaged.
8) ☐ Internship in teaching disadvantaged/handicapped students.
9) ☐ Other (specify)_____

14. What kinds of materials would be most helpful to you in conducting your program/class(es) for students with special needs? (Check all that apply)

1) ☐ Bibliographies of available materials
2) ☐ Curriculum guides
3) ☐ Audio-Visual Aids, such as tapes, transparancies, etc.
4) ☐ Textual materials geared to the needs of your students.
5) ☐ Occupational training plans for disadvantaged/handicapped students
6) ☐ Manuals for program operation.
7) ☐ Others_____

SURVEY OF PROGRAMS FOR
SPECIAL PEOPLE REQUIRING INTEREST-NEEDS-TRAINING

INSTRUCTIONS: Please respond to the following items. When you have completed the questionnaire, please return it in the enclosed postage paid envelope.

1. Name (Mr.) (Ms.) _____ Code No. _____

Program/Class(es) Assessment

2. Check the objectives that best describe your program/class(es). (Check all that apply). Then, indicate to what degree do you feel the program/class(es) is/are achieving the objectives that were checked?

		Excellent	Above Average	Average	Below Average	Poor
1) ☐	To train the student adequately for job entry.	5	4	3	2	1
2) ☐	To increase the students level of competency in academic areas.	5	4	3	2	1
3) ☐	To provide social adjustment and self realizational skills.	5	4	3	2	1
4) ☐	To assist students in developing an ability to make decisions regarding future goals.	5	4	3	2	1
5) ☐	To provide special education needs for the physically and mentally handicapped.	5	4	3	2	1
6) ☐	Other (please specify)_____	5	4	3	2	1
7) ☐	Other (please specify)_____	5	4	3	2	1

3. What methods are used in identifying potential students for your program/class(es)? (Check all that apply).
   1) ☐ Interest inventory
   2) ☐ Aptitude and/or intelligence tests
   3) ☐ Referrals (teachers, counselors, parents)
   4) ☐ No formal methods are used
   5) ☐ Student choice
   6) ☐ Other (specify)_____

4. What content is included in your program/class(es) for students having special needs? (Check all that apply).
   1) ☐ Remedial basic skills (reading, communications, mathematics, etc.)
   2) ☐ Specific job training skills for disadvantaged/handicapped.
   3) ☐ Personal and social development, such as grooming and/or human relations.
   4) ☐ Career information
   5) ☐ Modified content from subject area(s), such as home economics.
   6) ☐ On-job-training.
   7) ☐ Other (specify)_____

5. Please indicate the nature of any other special assistance that students enrolled in your program/class(es) receive. (Check all that apply)
   1) ☐ Tutorial services
   2) ☐ Diagnostic services
   3) ☐ Health services
   4) ☐ Language development classes (oral & written communication skills)
   5) ☐ Cultural awareness classes
   6) ☐ Other _____

6. What are the principal methods used to evaluate the success of your program/class(es)? (Check the two most important).
   1) ☐ Student achievement tests (teacher-made)
   2) ☐ Student achievement tests (standardized)
   3) ☐ Observation of student performance
   4) ☐ Student assessment by persons outside school, such as employers, etc.
   5) ☐ Formal evaluation of program by school or outside agency.
   6) ☐ Accrediation body, such as North Central Association
   7) ☐ Other (please specify)

7. When was your program started? (Check semester and indicate year)
   1) ☐ Summer, 19__
   2) ☐ Fall, 19__
   3) ☐ Spring, 19__

PROGRAM/CLASS(ES) INVENTORY

INSTRUCTIONS: In the columns at the right side you will note the program/classes listed which you indicated served the special needs students in your school. The items listed below refer to specific features of your program/ class(es) for the special needs students. Please respond to each item for each program/class listed.

8.	Which best describes the group of students in the program/class?	Disadvantaged						
		Handicapped						
		Both D & H						
9.	Indicate how many of the students fall into the following catagories. (Indicate each student by his primary needs.)	Urban Disadvantaged						
		Rural Disadvantaged						
		Physically Handicapped						
		Mentally Handicapped						
		Other						
		Total in program/class						
10.	With existing conditions, what is the maximum number of students that could be accomodated in each program/ class?							
11.	How many sections or classes are taught each day?							
12.	Is there a minimum grade level at which students may enter your program/class(es)? If yes, please indicate the grade.							
13.	How is the class or program scheduled?	Summer						
		Academic Year						
14.	How long may a student continue in the class/ program?	Summer only						
		Academic year only						
		Summer & academic year						
		Indefinitely, as long as the program is meeting his needs.						
15.	According to the organization of your program/class(es) at what point are the students supposed to exit. (Check all that apply).	When they complete course requirements						
		When they graduate						
		When they can succeed in a conventional program/class						
		When the program/class is over						
		When they drop out of school						
16.	What individual or agency is primarily responsible for identifying potential students for your program/ class? (Check only one)	School counselor						
		Employment Security Division						
		You						
		Rehabilitation Office						
		Vocational Director						
		Other						
17.	Which of the following best describes occupational activities provided students in your program? (Check only one)	Paid work experience during the school day						
		Paid work experiences after school hours						
		Unpaid work observation as a part of the curriculum						
		No student occupational activities						
		In school vocational laboratory activities						